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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

NCR Docket No. 9226

Application of:

PRICER, J. E. et al.

Group Art Unit: 2153

Serial No. 09/752,355

Examiner: Aaron N. Strange

Filed: December 29, 2000

For: IDENTIFYING WEB-LOG DATA REPRESENTING A SINGLE USER
SESSION

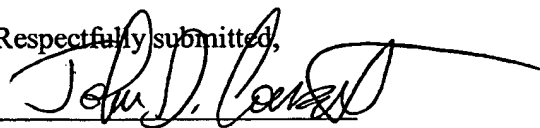
Commissioner for Patents
P.O. Box 1450
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APPEAL BRIEF TRANSMITTAL LETTER

Sir:

Transmitted herewith for filing is an Appeal Brief to the Final Rejection dated
November 30, 2004.

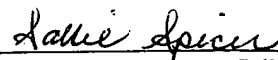
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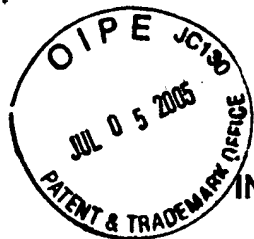
Respectfully submitted,

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CERTIFICATION OF MAILING UNDER 37 CFR 1.8

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By: 
Name: Sallie Spicer



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James E. Pricer, et al.

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For: IDENTIFYING WEB-LOG DATA REPRESENTING A SINGLE USER
SESSION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

This is a brief in support of Applicant's appeal filed on March 30, 2005, in response to the final action of the Office, dated November 30, 2004, in this matter.

CERTIFICATION OF MAILING UNDER 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on June 30 2005

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By: Sallie Spicer
Name: Sallie Spicer

(1) REAL PARTY IN INTEREST

The real party in interest in this matter is NCR Corporation, Dayton, Ohio, by virtue of an assignment recorded at reel 11706, frame 0753-57, on April 18, 2001.

(2) RELATED APPEALS AND INTERFERENCES

Applicant is aware of no active appeals or interferences related to this application.

(3) STATUS OF CLAIMS

Claims 1 through 15 are pending. All have been rejected and are under appeal. A listing of claims is attached as an appendix to this brief.

(4) STATUS OF AMENDMENTS

All amendments have been entered prior to appeal and are reflected in the listing of claims appended to this brief.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

The subject matter claimed includes a method (claims 1-5), a computer program (claims 6-10) and a database system (claims 11-15), all for use in tracking the actions of an Internet user. Data is loaded from one or more transaction logs (130, 140 in Fig. 1) of one or more Internet servers (115, 120 in Fig. 1) across plural parallel processing modules (205_{1...N} in Fig. 2) of a database system (150 in Figs. 1 & 2). (*See* page 3, lines 7-21, of Applicant's specification.) This transaction-log (or "web-log") data includes an entry for each request to the Internet server, including information that identifies which user submitted the request and the time at which the request was received by the Internet server. (*See* page 3, lines 1-6, of Applicant's specification.)

The database system executes a database query across the plural parallel processing modules to select from the web-log data all entries associated with a particular user and corresponding to a single session of that user. (See page 4, line 7, through page 6, line 43, of Applicant's disclosure; Fig. 3.) In other words, the database system "sessionizes" the web-log data, or identifies data corresponding to a particular user session, by selecting all of the web-log entries that result from a single session of a particular Internet user. It is important to note that the database system does this by executing the database query in parallel across plural processing modules.

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The ground of rejection to be reviewed by the Board is a rejection of all claims under 35 U.S.C. § 103(a) in view of US Published Application 2002/0042821 to Muret, *et al.*, when combined with US Patent 6,026,394 to Tsuchida, *et al.*

(7) ARGUMENT

A. The Rejection of Claims 1-15 in view of Muret and Tsuchida

Applicant has argued previously and maintains now that the Muret publication and the Tsuchida patent, even when combined, fail to show or even suggest loading, storing or managing "data from one or more transaction logs of one or more Internet servers" across "plural parallel processing modules" of a database system, and then "execut[ing] a database query across the parallel processing modules to select from the data all entries associated with a particular user and corresponding to a single session of that user," as recited in all of the claims.

To establish a *prima facie* case of obviousness, the Office must show that three basic criteria are met: (1) There is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or to combine reference teachings; (2) there is a reasonable expectation of success in doing so; and (3) the prior art references when combined teach or suggest all the claim limitations. In citing the Muret and Tsuchida references, the Office has failed to meet at least two of these three criteria. In particular, not only do Muret and Tsuchida fail to suggest the combination of their teachings, it is not at all clear that the relevant teachings from these two references could be combined, and there is certainly nothing to suggest that a person of ordinary skill in the art would have had a reasonable expectation of success in trying to do so.

As conceded by the Office in the second Office action, “Muret *et al.* fails to disclose that the database system comprises plural parallel processing modules or executing a database query across the plural parallel processing modules to select the entries from the data.” (Office action dated 11/30/04, Page 3.) The Office goes on to conclude, however, that it would have been obvious to one of ordinary skill in the art to apply Muret’s sessionizing technique to a parallel database system like that described by Tsuchida.

What the Office apparently fails to appreciate is that the sessionizing technique described by Muret is not intended for execution in a parallel system and in fact does not lend itself to parallel execution across plural processing modules. As pointed out by Applicant before (*see* page 5 of Applicant’s first reply, mailed 7/30/04), Muret’s system uses a very complex, and inevitably slow, sequential program to parse through web-log data, distributing this data across a vast array of tables. These tables include a “visitor table 310” and many “data tables 315,” which themselves include a variety of nested tables, such as a “hash table 340,” a “rank table 345,” a “record table 350,” and a “string table 355.” (Muret, ¶¶ [0060] - [0061].) The complexity and sequential nature of Muret’s

control program is clear from the description of the modules that it includes (*e.g.*, a “buffer update module 240” and a “log parser module 210”) and the data-management pieces that it must oversee (*e.g.*, “pre-allocated log buffer 600” and a “pointer array 610”). (*See* Muret, ¶¶ [0072], [0080] – [0081].) Muret himself describes the control program as one having loops nested within loops: “The control routine comprises a main loop 1200, a visitor loop 1210 nested within the main loop 1200, and a read loop 1215 nested within the visitor loop 1210.” (¶ [0057].)

Simply put, Muret’s program is not created for execution in parallel across plural processing modules, nor is it at all obvious that the program could be executed in such a manner. There is certainly nothing in either Muret or Tsuchida to suggest that Muret’s program could or even should be executed across the plural processing modules of a parallel database system. Accordingly, the teachings of these two references do not lend themselves to combination, and Applicant’s claims all are patentable over the two.

B. Reply to Remarks in Advisory Action

Applicant wishes to address also the assertion by the Office in its Advisory Action that “Applicant’s arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.” (Advisory Action dated 5/5/05, page 2.) Applicant disagrees with the Office on this point.

Applicant’s second reply recites specific claim language that is not covered by the combination of the Muret and Tsuchida references. In particular, Applicant made the following statements:

Muret does not show or suggest a system in which data is loaded from the transaction logs of Internet servers “across plural parallel processing

modules” of a database system. Likewise, Muret does not show nor suggest executing “a database query across [such] parallel processing modules” to select all of the data associated with a particular user session. (Applicant’s reply of 3/30/05, page 5.)

The phrases appearing in quotation marks above are taken directly from Applicant’s claims, so there is no basis for the charge that Applicant failed to “specifically [point] out how the language of the claims patentably distinguishes them from the references.” What’s more, the rest of Applicant’s remarks in that reply went on to explain, as Applicant has done above, that the Tsuchida patent cannot be properly combined with Muret to overcome the deficiencies that exist in Muret’s teachings. In making its argument, Applicant relied primarily on the notion that one of ordinary skill in the art would have had no reasonable expectation of success in attempting to combine the teachings of the two references.

What’s more, the Office appears to have given no credence to the arguments in Applicant’s second reply on the ground that Applicant argued “limitations [that] do not appear in any of the rejected claims.” (See Advisory Action, page 3.) In particular, the Office states in the Advisory Action that “[n]othing in the claims refers to ‘sessionizing’ transaction records.” (Advisory Action, page 3.) This statement is simply untrue. All of Applicant’s claims recite the execution of “a database query . . . to select all entries associated with a particular user and corresponding to *a single session* of that user.” (Emphasis added.) While it is true that the exact term “sessionizing” does not appear in the claims, Applicant’s arguments are no less valid because it chose to use this term as shorthand for the claim language “select[ing] all entries associated with a particular user and corresponding to a single session of [a] user.”

The Office also objected to Applicant’s discussion of “a series of SQL commands” in Applicant’s second reply. (Advisory Action, page 3.) Applicant’s

discussion of SQL commands appeared simply to drive home the point that a person of ordinary skill in the art would have had no reasonable expectation of success in trying to combine the teachings of Muret and Tsuchida. At no point did Applicant assert that a series of SQL commands executed in any order are a necessary part of the invention or an element of any one of the claims. Applicant was simply pointing out that the elegance of Applicant's SQL-based solution for "sessionizing" web-log data in a parallel database system, as described in Applicant's specification, might have obscured the inherent incompatibilities between the teachings of Muret and Tsuchida.

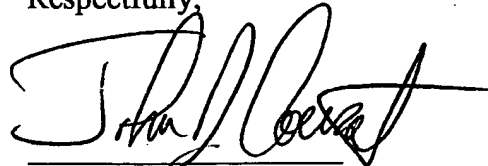
In short, Applicant stands by its remarks in its previous replies and its conclusion that all of the claims are patentable over Muret and Tsuchida.

(9) CONCLUSION

The Muret publication and Tsuchida patent, even when taken in combination, do not show nor suggest the features of Applicant's invention as set forth in any of the claims. Applicant therefore asks the Board to reverse the rejection and allow all of the claims.

Please apply any charges or credits that might be due, except the issue fee, to Deposit Account 14-0225.

Respectfully,

A handwritten signature in black ink, appearing to read "John D. Cowart", written over a horizontal line.

John D. Cowart
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CLAIMS APPENDIX

1. (Once amended) A method for use in tracking the actions of an Internet user, the method comprising:

loading data from one or more transaction logs of one or more Internet servers across plural parallel processing modules of a database system, where the data includes an entry for each request to the Internet server, including information identifying which user submitted the request and information identifying the time at which the request was received; and

executing a database query across the parallel processing modules to select from the data all entries associated with a particular user and corresponding to a single session of that user.

2. (Original) The method of claim 1, where the step of selecting includes selecting entries with time stamps lying in a predetermined range.

3. (Original) The method of claim 1, where the step of selecting includes comparing time stamps of entries and selecting each entry for which the time stamp differs from the time stamp of another entry by less than a predetermined amount.

4. (Original) The method of claim 3, where the step of selecting includes selecting each entry for which the time stamp differs from the time stamp of another entry by less than 30 minutes.

5. (Original) The method of claim 1, also including sorting the selected entries chronologically to reconstruct the user's clickstream.

6. (Once amended) A computer program, stored on a tangible storage medium, for use in tracking the actions of an Internet user, the program comprising executable instructions that cause one or more computers to:

load data from one or more transaction logs of one or more Internet servers across plural parallel processing modules of a database system, where the data includes an entry for each request to the Internet server, including information identifying which user submitted the request and information identifying the time at which the request was received; and

execute a database query across the parallel processing modules to select from the data all entries associated with a particular user and corresponding to a single session of that user.

7. (Original) The program of claim 6, where, in selecting entries, the computer selects entries with time stamps lying in a predetermined range.

8. (Original) The program of claim 6, where, in selecting entries, the computer compares time stamps of entries and selects each entry for which the time stamp differs from the time stamp of another entry by less than a predetermined amount.

9. (Original) The program of claim 8, where, in selecting entries, the computer selects each entry for which the time stamp differs from the time stamp of another entry by less than 30 minutes.

10. (Original) The program of claim 6, where the computer also sorts the selected entries chronologically to reconstruct the user's clickstream.

11. (Once amended) A database system comprising:

one or more data-storage facilities for use in storing data received from one or more transaction logs of one or more Internet server computers, where the data includes an entry for each request to the Internet server computers, including information identifying which user submitted the request and information identifying the time at which the request was received; and

plural parallel processing modules configured to manage the data stored in the data-storage facilities; and

a database-management component configured to execute a database query across the parallel processing modules to select from the data all entries associated with a particular user and corresponding to a single session of that user.

12. (Original) The system of claim 11, where the database-management component is configured to select entries with time stamps lying in a predetermined range.

13. (Original) The system of claim 11, where the database-management component is configured to compare time stamps of entries and to select each entry for which the time stamp differs from the time stamp of another entry by less than a predetermined amount.

14. (Original) The system of claim 13, where the database-management component is configured to select each entry for which the time stamp differs from the time stamp of another entry by less than 30 minutes.

15. (Original) The system of claim 11, where the database-management component is configured to sort the selected entries chronologically to reconstruct the user's clickstream.